

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Prakash Nama on 12/19/2009.

The application has been amended as follows:

Replace claim 26 with:

26. A dynamic binary translator system which operates between any platform types for translating machine instruction in source code into equivalent target instructions of a code of a target platform, wherein the source code differs from the code of the target platform, said system comprising:

a processor; and

storage coupled to the processor, wherein the storage comprises:

a dynamic binary translator arranged to be responsive to the precompiled template and for performing a build and compilation process of a dynamic binary translator which operates between any processor or platform types and that translates a

source code instruction into a target code instruction, wherein the source code differs from the target code, the process comprising:

- (a) creating a repository of magic numbers, wherein each magic number is a unique integer representing one and only one variant of a source instruction so that the collection of all the magic numbers represents the set of all valid instructions possible of a source instruction set to form a set of constants associating a unique string with a unique integer, wherein the string shortly describes a variant of the instruction which the magic number is supposed to represent;
- (b) creating a repository of templates, wherein each template is a functionally equivalent sequence of target architecture instructions, for each source instruction, each template having temporary native registers for its operations and is compiled at the compile time of the binary dynamic translator as a function and whose name is derived from the corresponding magic number's associated string so that the templates are available as a routine/function at run-time;
- (c) creating a table, indexed on magic numbers, containing the references to the corresponding templates so that at run-time the translator can pick up the appropriate template for a given instruction after ascertaining its magic number;
- (d) creating a repository of template filler routines in which each template filler routine has the knowledge of both the source and target instructions; causing the template filler routine of a given template to extract dynamic components of the source instruction and fill the extracted items in an in-memory template to replace corresponding placeholders; causing the translator to call the template filler routine for a given instruction at

run-time so a template filler routine repository is linked to corresponding templates and magic numbers;

(e) creating a repository of minimal decode/magic-number-routines; causing a minimal decode/magic-number-extractor routines repository to give a raw source instruction and return the magic number of that instruction; preparing the dynamic binary translator to operate between any processor or platform types by compiling steps (a)-(e) together.

In claim 30, line 1, **replace** "A computer readable medium" **with** "A computer readable storage medium comprising a dynamic binary translator"

In claim 30, line 2, **replace** "of a" **with** "of the"

In claim 31, line 1 **replace** "computer readable medium" **with** "computer readable storage medium"

In claim 32, line 1 line 1 **replace** "computer readable medium" **with** "computer readable storage medium"

In claim 33, line 12, **after** "binary translator" **insert** "performing the build and compilation process"

Claims 1, 3-5, 7, 8, 10-12, 14-19, and 22 are cancelled.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL YAARY whose telephone number is (571)270-1249. The examiner can normally be reached on Mon-Fri 9 a.m.-5:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis Bullock can be reached on 571-272-3759. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. Y./
Examiner, Art Unit 2193

/Lewis A. Bullock, Jr./
Supervisory Patent Examiner, Art Unit 2193